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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,278	01/30/2004	Masahiko Inamori	L8462.04104	4284

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EXAMINER

NGUYEN, THUAN T

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/767,278	<b>Applicant(s)</b> INAMORI ET AL.	
	<b>Examiner</b> THUAN T. NGUYEN	<b>Art Unit</b> 2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 13-26 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

***DETAILED ACTION***

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-12, drawn to an attenuator with a switch, classified in class 455, subclass 249.1.
  - II. Claims 13-26, drawn to a mobile terminal device, classified in class 455, either subclass 95 or 550.1.
2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because Group II describes a mobile terminal with its other detailed components therein. The subcombination (of Group I) has separate utility such as the attenuator with a switch can be used and applied distinctly to any electronic device and/or apparatus, not necessary within the mobile terminal device.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

This application contains claims 13-26 drawn to an invention nonelected with traverse in Paper No. 051206. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Remark***

3. Applicants elects group I for examination, with traverse, which is acknowledged.

***Claim Rejections - 35 USC 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --*

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

5. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Inamori et al. (US Patent 6,229,370 B1).

Regarding claim 1, Inamori discloses a circuit of Fig. 2 being regarded as an attenuator (col. 16/lines 57-65) with switch function (col. 6/lines 50-58) with the circuit arrangement as noted comprising a first variable resistor, a second variable resistor, and the attenuation of each one of the first and second variable resistors is controlled by means of a gain control voltage as claimed (refer to Figs. 1 & 2, and col. 10/lines 28-48).

As for claim 2, this claim is same to claim 1 above, and is taught by Inamori as noted in claim 1.

As for claim 3, Inamori teaches this feature, which simply refers to each variable resistor is connected at least with the gate of a field effective transistor (FET), a first resistor to the first FET and a second resistor to the second FET, the gate and the source of the first and the second FET are connected appropriately to the a first and a second reference voltage applying parts (Fig. 2, and col. 10/lines 50-64).

As for claims 4-7, Inamori teaches these claims, which refer to the arrangement and connection of the voltage reference and a voltage threshold, and the circuit performs the gain control operation based on a predetermined range (col. 10/line 65 to col. 11/line 38).

As for claims 8-9, Inamori teaches these claims, which refer to the setting of the values of voltages applied to the first and second reference voltage such that a gain control voltage which completely turns off the second FET will be lower than a gain control voltage which completely turns off the first FET and such that when both FETs are completely off, the other one of the first and the second FETs will perform a gain control operation (refer to Fig. 3 and col. 11/line 45 to col. 12/line 11).

As for claim 10, Inamori teaches this feature as a third variable resistor and a fourth variable resistor is adding to the circuitry of concerned (refer to Figs. 7 & 8, and col. 15/lines 40-62).

As for claims 11-12, these claims, which is a combination of claims 2 and 10, are rejected for the reasons given in the scope of claims 2 and 10 as discussed above).

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsutsumi et al, Fujimoto, Inoue, and Groen (PTO-892 attached) disclose circuitry with attenuator and switching function.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to the New Central Fax number:**

(571) 273-8300, (for Technology Center 2600 only)

Hand deliveries must be made to Customer Service Window,

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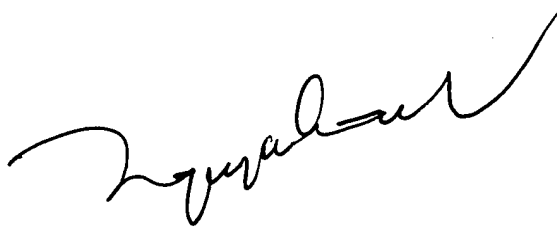
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895.

The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Division or Art Unit 2618.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TONY T. NGUYEN  
PATENT EXAMINER, FSA

Tony T. Nguyen  
Art Unit 2618  
August 30, 2006